

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/09/98

Date Received: 12/31/97

Project: Metro Self Monitor, PO #M59540

Date Extracted: 01/07/98

Date Analyzed: 01/08/98

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>M59540</u>	<u>Method Blank</u>
Analyte:		
Chromium	0.45	<0.05
Copper	0.21	<0.05
Nickel	0.47	<0.05
Zinc	<0.05	<0.05

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**QUALITY ASSURANCE RESULTS
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Laboratory Code: 801012-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.5	0.4	22vo	0-20
Copper	mg/L (ppm)	0.35	0.31	12	0-20
Nickel	mg/L (ppm)	0.65	0.56	15	0-20
Zinc	mg/L (ppm)	0.11	0.10	10	0-20

Laboratory Code: 801012-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	0.5	107	102	80-120	5
Copper	mg/L (ppm)	5	0.35	97	83	80-120	16
Nickel	mg/L (ppm)	10	0.65	111	117	80-120	5
Zinc	mg/L (ppm)	5	0.11	125vo	133vo	80-120	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	99	104	80-120	5
Copper	mg/L (ppm)	5	102	106	80-120	4
Nickel	mg/L (ppm)	10	100	107	80-120	7
Zinc	mg/L (ppm)	5	100	106	80-120	6

vo - The value reported fell outside the control limits established for this analyte.

PJ# 712118 KJ AI
12.31.97

12.31.97

Company Alaska Copper Works Contact Geoff Thompson
Address 628 Hanson St
City, State, Zip Seattle WA 98134
Phone # (206) 382-8779 FAX # (206) 382-4709 Date 12-31-97

PURCHASE ORDER #

7238

miro Self monitor

m 59540

PROJECT LOCATION

3200 6th Ave S

SAMPLE DISPOSAL INFORMATION

☐ Dispose after 30 days
☒ Return Samples
☐ Call for Instructions

Sample #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #	Analyses Requested
55-10	12/1/87 10:00	H ₂ O	1	01	Ch. Cu. Ni. Zn.

FORMS/COC

00.009/4

AKC-0011158

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

January 9, 1998

DUPLICATE COPY

INVOICE #98ACU0109-3

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M59540: Results of testing requested
by Gerry Thompson for material submitted on December 31, 1997.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FEDERAL TAX ID (b) (6)

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January 9, 1998

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

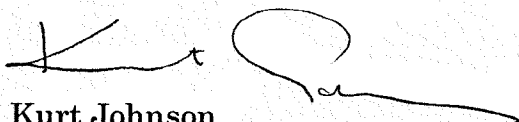
Dear Mr. Thompson:

Included are the results from the testing of material submitted on December 31, 1997 from your Metro Self Monitor, PO #M59540 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist

Enclosures
ACU0109R.DOC